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Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=7; day=20; hr=9; min=36; sec=32; ms=363;]

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Application No: 10534780

Version No: 1.0

Input Set:

Output Set:

Started: 2009-07-17 10:30:11.660

Finished: 2009-07-17 10:30:14.041

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 381 ms

Total Warnings: 30

Total Errors: 0

No. of SeqIDs Defined: 30

Actual SeqID Count: 30

Error code	Error Description
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W 213	Artificial or Unknown found in <213> in SEQ ID (16)
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W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

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Error Description

This error has occurred more than 20 times, will not be displayed

<110> APPLICANT: Performance Plants, Inc.
<120> TITLE OF INVENTION: Hydroxypyruvate Reductase Nucleic Acids, Polypeptides, Promoter Elements and Methods of Use Thereof in Plants
<130> FILE REFERENCE: 22542-010-061

<140> CURRENT APPLICATION NUMBER:10534780
<141> CURRENT FILING DATE:2009-07-17
<150> PRIOR APPLICATION NUMBER: 60/427,204
<151> PRIOR FILING DATE: 2002-11-18
<160> NUMBER OF SEQ ID NOS: 30
<170> SOFTWARE: PatentIn version 3.2

<210> SEQ ID NO 1
<211> LENGTH: 1161
<212> TYPE: DNA
<213> ORGANISM: Artificial
<220> FEATURE:
<223> OTHER INFORMATION: Hydroxypyruvate reductase (HPR) nucleic acid sequence
<400> SEQUENCE: 1

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acaaaaccga tgcctggaac tcgctggatc aatctcttgg tagaccaagg ttgtcgcggt      120
gagatatgtc atttgaagaa gacaatcttg tctgtagaag atatcattga tctgatcgga      180
gacaagtgtg atggagtcac cggtcagttg acggaagatt ggggagagac tctgttctca      240
gctttgagca aagctggagg gaaagctttc agtaacatgg ccgttggtta taacaacggt      300
gatgttgaag ctgccaataa gtatggaatt gctgtcggta aactccggg agtggtgact      360
gagacgacgg ctgaactagc tgcttctctt tccttggtg ctgcaagaag aattgttgaa      420
gccgacgaat tcatgagagg tggcttgtag gagggatggc ttcctcatct gtttgtgggg      480
aacttactta aaggacagac tgttgaggat attggagctg gacgtattgg atctgcttat      540
gctagaatga tgggtgaagg gttcaagatg aatttgatct actttgatct ttaccaatcc      600
actcgtcttg agaaatttgt gacagcttat ggacagttct tgaaagcaaa tggagaacaa      660
cctgtgacat ggaaacgagc ttcgtccatg gaggaggtgc tgcgtgaggc tgatctgata      720
agtcttcacc cgggtgctga caaaaccact taccatcttg tcaacaagga gaggcttgcc      780
atgatgaaaa aggaagcaat ccttgtgaac tgcagcagag gtctgtgat cgatgaggca      840
gctttggtcg aacatctcaa agagaaccgg atgttccgag ttggtctcga tgtgttcgag      900
gaagagccat tcatgaaacc agggcttgct gatacgaaaa acgctattgt tgttcctcac      960
attgcttctg cttcaaagtg gactcgtgaa ggaatggcta cgcttgagc tctcaacgtc     1020
ctcggaagag tcaaagggtg cccgatttgg catgaccga accgagtcga tccattcttg     1080
aacgaaaacg cttaccgcc caatgccagt ccaagcatcg tcaactcaaa ggccttagga     1140
ttgcctgttt cgaagctatg a                                     1161
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<210> SEQ ID NO 2
<211> LENGTH: 386
<212> TYPE: PRT
<213> ORGANISM: Artificial
<220> FEATURE:
<223> OTHER INFORMATION: encoded HPR protein sequence
<400> SEQUENCE: 2

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Met Ala Lys Pro Val Ser Ile Glu Val Tyr Asn Pro Asn Gly Lys Tyr
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Arg Val Val Ser Thr Lys Pro Met Pro Gly Thr Arg Trp Ile Asn Leu
      20             25             30
Leu Val Asp Gln Gly Cys Arg Val Glu Ile Cys His Leu Lys Lys Thr
      35             40             45
Ile Leu Ser Val Glu Asp Ile Ile Asp Leu Ile Gly Asp Lys Cys Asp
      50             55             60
Gly Val Ile Gly Gln Leu Thr Glu Asp Trp Gly Glu Thr Leu Phe Ser
 65             70             75             80
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Lys Leu
385

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<211>  LENGTH: 1161
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<213> ORGANISM: Artificial

<223> OTHER INFORMATION: nucleotide sequence complimentary to HPR

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gggcggtgaa	gcgttttcgt	tcaagaatgg	atcgactcgg	ttcgggtcat	gccaaatcgg	120
gtaccctttg	actcttcgga	ggacgttgag	agctgcaagc	gtagccattc	cttcacgagt	180
ccacttgga	gcagaagcaa	tgtgaggaac	aacaatagcg	tttttcgtat	cagcaagccc	240
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tttgagatgt	tcgaccaaag	ctgcctcatc	gatcacagga	cctctgctgc	agttcacaag	360
gattgcttcc	tttttcatca	tggcaagcct	ctccttgttg	acaagatggg	aagtggtttt	420
gtccagcacc	gggtgaagac	ttatcagatc	agcctcacgc	agcacctcct	ccatggacga	480
agctcgtttc	catgtcacag	gttggttctcc	atttgctttc	aagaactgtc	cataagctgt	540

cacaaatttc	tcaagacgag	tggattggta	aagatcaaag	tagatcaaat	tcatcttgaa	600
cccttcacc	atcattctag	cataagcaga	tccaatacgt	ccagctccaa	taactccaac	660
agtctgtcct	ttaagtaagt	tccccacaaa	cagatgagga	agccatccct	cgtacaagcc	720
acctctcatg	aattcgtcgg	cttcaacaat	tcttcttgca	gcagccaagg	aaagagaagc	780
agctagttca	gccgtcgtct	cagtcaacac	tcccggagtg	ttaccgacag	caattccata	840
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ccctccagct	ttgctcaaa	ctgagaacag	agtctctccc	caatcttccg	tcaactgacc	960
gatgactcca	tcacacttgt	ctccgatcag	atcaatgata	tcttctacag	acaagattgt	1020
cttcttcaaa	tgacatatct	caacgcgaca	accttgggtct	accaagagat	tgatccagcg	1080
agttccaggc	atcggttttg	tgctaacaac	tctgtatttc	ccattaggat	tatacacttc	1140
aatggacacc	ggtttcgcca	t				1161

<210> SEQ ID NO 4

<211> LENGTH: 512

<212> TYPE: DNA

<213> ORGANISM: Artificial

<220> FEATURE:

<223> OTHER INFORMATION: HPR promoter sequence

<400> SEQUENCE: 4

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catgttttgt	tctcttttca	ctgtggatgt	agataattgt	ttttaatgaa	atgaagaaat	120
attgatttgc	cttttgacat	aattttgtta	ataatcttga	ttacaaattt	tagtcagtgt	180
ttgatgcata	gttgcatact	gcagagttga	gtttggatat	ggccacgtca	gcattatctc	240
gttaccaaaa	cgtaaggtec	aaactcagat	aatacaaacg	aagcagttct	ttgtcactct	300
atcatcaaca	tatgaaccac	acaaaaaaag	aacaaaatcg	tagataatga	tcatgcaaaa	360
ccgaccgttg	gatcttactt	tcgatttcaa	accacataaa	tcttagtgac	tgagctaaaa	420
aactgaaatt	ttttaaaagg	caagacctcc	tctgtttcca	tattctcacc	acagaagaac	480
tcttgaggct	ttctcttttc	tctacatggg	cg			512

<210> SEQ ID NO 5

<211> LENGTH: 288

<212> TYPE: DNA

<213> ORGANISM: Artificial

<220> FEATURE:

<223> OTHER INFORMATION: HPR truncated promoter sequence

<400> SEQUENCE: 5

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taatgatcat	gcaaaaccga	ccgttgatc	ttactttcga	tttcaaacca	cataaatctt	180
agtgactgag	ctaaaaaact	gaaatttttt	aaaaggcaag	acctcctctg	tttccatatt	240
ctcaccacag	aagaactctt	gaggetttct	cttttctcta	ccatggcg		288

<210> SEQ ID NO 6

<211> LENGTH: 26

<212> TYPE: DNA

<213> ORGANISM: Artificial

<220> FEATURE:

<223> OTHER INFORMATION: HPRClaI primer

<400> SEQUENCE: 6

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<210> SEQ ID NO 7

<211> LENGTH: 29

<212> TYPE: DNA

<213> ORGANISM: Artificial

<220> FEATURE:

<223> OTHER INFORMATION: HPRBamHI primer

<400> SEQUENCE: 7
 cgggatcctc atagcttcga aacaggcaa 29

<210> SEQ ID NO 8
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 <213> ORGANISM: Artificial
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 <400> SEQUENCE: 8
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<210> SEQ ID NO 9
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 <212> TYPE: DNA
 <213> ORGANISM: Artificial
 <220> FEATURE:
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 <400> SEQUENCE: 9
 tttaagcttg gagccataga tgcaattcaa 30

<210> SEQ ID NO 10
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 <212> TYPE: DNA
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 aaatctagac tttccaatag aagtaatcaa acc 33

<210> SEQ ID NO 11
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 <213> ORGANISM: Artificial
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 <223> OTHER INFORMATION: HPRXbaRE primer
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<210> SEQ ID NO 12
 <211> LENGTH: 29
 <212> TYPE: DNA
 <213> ORGANISM: Artificial
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 <223> OTHER INFORMATION: HPRSacFW primer
 <400> SEQUENCE: 12
 aaagagctca tggcgaaacc ggtgtccat 29

<210> SEQ ID NO 13
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 <212> TYPE: DNA
 <213> ORGANISM: Artificial
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 <223> OTHER INFORMATION: HPRSacRE primer
 <400> SEQUENCE: 13
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<210> SEQ ID NO 14
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 <223> OTHER INFORMATION: HPRP1Hind primer
 <400> SEQUENCE: 14
 aaaaagcttg aagcagcaga agccttgat 29

<210> SEQ ID NO 15
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 <212> TYPE: DNA
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 aaaggatccc gccatggtag agaaaagaga 30

<210> SEQ ID NO 16
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 <212> TYPE: DNA
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 <223> OTHER INFORMATION: HPR3Hind primer
 <400> SEQUENCE: 16
 aaaaagctta cgtcagcatt atctcgttac 30

<210> SEQ ID NO 17
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 <212> TYPE: DNA
 <213> ORGANISM: Artificial
 <220> FEATURE:
 <223> OTHER INFORMATION: Oligonucleotide Adapter 1
 <400> SEQUENCE: 17
 ctaatacgac tcactatagg gctcgagcgg ccgcccgggc aggt 44

<210> SEQ ID NO 18
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 <212> TYPE: DNA
 <213> ORGANISM: Artificial
 <220> FEATURE:
 <223> OTHER INFORMATION: Oligonucleotide Adapter 2
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 <222> LOCATION: (8)..(8)
 <223> OTHER INFORMATION: 3'-NH2 modification
 <400> SEQUENCE: 18
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 <213> ORGANISM: Artificial
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 ggatcctaatac gactcact atagggc 27

<210> SEQ ID NO 20
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<212> TYPE: DNA
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<220> FEATURE:
<223> OTHER INFORMATION: 28w1 primer
<400> SEQUENCE: 20
agctggcgta atagcgaaga 20

<210> SEQ ID NO 21
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<212> TYPE: DNA
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<220> FEATURE:
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<210> SEQ ID NO 23
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<212> TYPE: DNA
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<220> FEATURE:
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<210> SEQ ID NO 25
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<213> ORGANISM: Artificial
<220> FEATURE:
<223> OTHER INFORMATION: NPT 1 primer
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<212> TYPE: DNA
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 <223> OTHER INFORMATION: NPT 2 primer
 <400> SEQUENCE: 26
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 <213> ORGANISM: Artificial
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<210> SEQ ID NO 28
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 <223> OTHER INFORMATION: TATA box consensus sequence
 <220> FEATURE:
 <221> NAME/KEY: TATA_signal
 <222> LOCATION: (1)..(6)
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